

WHAT IS CLAIMED IS:

1. A method of manufacturing a semiconductor device comprising the step of:
 - a wiring board;
 - a first semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which is electrically connected to the wiring board by a flip-chip bonding via raised electrodes, the circuitry side of the first chip facing the principal surface of the wiring board; and
 - a second semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which includes external electrodes on the circuitry side thereof,
 - wherein the non-circuitry sides of the first and second semiconductor chips are secured to each other, and
 - wherein each of the external electrodes of the second semiconductor chip is connected to a wiring of the wiring board via metal fine wires, and
 - wherein the external electrodes are disposed so as not to overlap with the raised electrodes, and
 - wherein after a resin is formed between the first semiconductor chip and wiring board, the metal fine wires is electrically connected by wire-bond.
2. A semiconductor device comprising:
 - a wiring board;
 - a first semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which is electrically connected to the wiring board by a flip-chip bonding via raised electrodes, the circuitry side of the first chip facing the principal surface of the wiring board; and
 - a second semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which includes external electrodes on the circuitry side thereof,
 - wherein the non-circuitry sides of the first and second semiconductor chips are secured to each other, and
 - wherein each of the external electrodes of the second semiconductor chip is connected to a wiring of the wiring board via metal fine wires, and

wherein the external electrodes are disposed so as not to overlap with the raised electrodes, and

wherein a cross-sectional area of the raised electrodes is under dozens μm .

3. The device of claim 1, wherein the flip-chip bonding is used a conductive adhesive.

4. The device of claim 1, wherein the flip-chip bonding is used a low melting metal.

5. The device of claim 1, wherein the raised electrodes is directly connected to the wiring of the wiring board by the flip-chip bonding.

6. The device of claim 1, wherein the first semiconductor chip and the second semiconductor chip have a thickness of 300 μm or lower.

7. A semiconductor device comprising:
a wiring board;
a first semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which is electrically connected to the wiring board by a flip-chip bonding via raised electrodes, the circuitry side of the first chip facing the principal surface of the wiring board; and

a second semiconductor chip, which has a circuitry side and a non-circuitry side that face each other vertically and which includes external electrodes on the circuitry side thereof,

wherein the non-circuitry sides of the first and second semiconductor chips are secured to each other, and

wherein each of the external electrodes of the second semiconductor chip is connected to a wiring of the wiring board via meal fine wires, and

wherein the external electrodes are disposed so as not to overlap with the raised electrodes, and

wherein at least one of side faces of the first semiconductor chip at least one of side faces of the second semiconductor chip are near with each other.

8. The device of claim 7, wherein the flip-chip bonding is used a conductive adhesive.

9. The device of claim 7, wherein the flip-chip bonding is used a low melting metal.

10. The device of claim 7, wherein the raised electrodes is directly connected to the wiring of the wiring board by the flip-chip bonding.

11. The device of claim 7, wherein the first semiconductor chip and the second semiconductor chip have a thickness of 300 μ m or lower.